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| 10/091,254                           | 03/04/2002  | Hisanori Tsuchino    | 02110/LH            | 6805             |
| 1933                                 | 7590        | 09/15/2004           | EXAMINER            |                  |
| FRISHAUF, HOLTZ, GOODMAN & CHICK, PC |             |                      | HO, ALLEN C         |                  |
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DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/091,254

Applicant(s)

TSUCHINO, HISANORI

Examiner

Allen C. Ho

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-29 and 34 is/are allowed.
- 6) ☒ Claim(s) 13-22 and 30-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) in view of Tachi *et al.* (U. S. Patent No. 6,027,247).

With regard to claim 13, Yamayoshi disclosed a radiographing apparatus, comprising: a radiographing sections (3, 17) to form an image corresponding to radiation received from a radiation irradiating section (1); a first operating device (7) located remote from the radiographing section and electrically connected to the radiographing section to set a radiographing condition of the radiographing section, wherein the radiographing section has a normal mode (ready state) for conducting radiographing and a standby mode (sleep state).

However, Yamayoshi failed to teach that the radiographing apparatus further comprises a second operating device in a vicinity of the radiographing section to change the radiographing condition set by the first operating device, and wherein the second operating device cancels the standby mode of the radiographing section.

Tachi *et al.* disclosed a radiographing apparatus comprising a first operating device (700) and a second operating device (500) located in a vicinity of the radiographing section. Tachi *et al.* taught that a proximal operating device which can immediately be operated on the spot while

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performing medical treatment or surgical operation has become indispensable in addition to the original control device in another room (column 8, lines 66-67 to column 9, lines 1-15).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device in a vicinity of the radiographing section to change the radiographing condition set by the first operating device, since a person would be motivated to control the radiographing section while performing medical treatment or surgical operation on a patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the second operating device to cancel the standby mode, since a person would be motivated to operate the radiographing apparatus by using the second operating device.

With regard to claim 17, Yamayoshi in combination with Tachi *et al.* disclosed the radiographic apparatus of claim 13, wherein the second operating device comprises a display member (Tachi *et al.* 546) to display information about the radiographing condition set by the first operating device.

With regard to claim 18, Yamayoshi in combination with Tachi *et al.* disclosed the radiographic apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that the first operating device comprises a display member to display information about the radiographing condition changed by the second operating condition.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a first operating device comprising a display member to display information about the radiographing condition changed by the second operating device, since a

person would be motivated to provide a display that immediately informs the user using the first operating device of the current radiographing condition.

With regard to claim 19, Yamayoshi in combination with Tachi *et al.* disclosed the radiographic apparatus of claim 13, wherein the second operating device has a higher priority to set the radiographing condition than the first operating device (inherent, since it could override the condition set by the first operating device).

With regard to claim 20, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that when a change of the radiographing condition which cannot be performed by the second operating device is operated, the second operating device comprises a display member to display an indication to show information that the change cannot be performed by the second operating device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device that comprises a display member to display an indication to show information that the change cannot be performed by the second operating device, since a person would be motivated to provide a feedback to the user when the user tries to perform a forbidden operation with the radiographing section.

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) and Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Aufrichtig *et al.* (U. S. Patent No. 6,359,961 B1).

With regard to claim 14, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that the radiographing section is connected to the first operating device through a network.

Aufrichtig *et al.* taught connecting a radiographing section (10) to a remote user (1022) through a network.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to connect the radiographing section to the first operating device through a network, since a person would be motivated to provide a communication link between the radiographing section and the first operating device so that they could interact with each other. Furthermore, a network is very flexible since it has the capacity to accommodate additional components.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) and Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Haumann *et al.* (U. S. Patent No. 6,285,742 B1).

With regard to claim 15, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that the second operating device is detachably mounted on the radiographing section.

Haumann *et al.* disclosed an operating device (17) detachably mounted on a radiographing section.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device detachably mounted on the radiographing section, since a person would be motivated to provide an operating device that

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could be detached from the radiographing section and carried by a technician and allows the technician to set radiographing conditions as he or she moves around the patient.

5. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) and Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Khutoryansky *et al.* (U. S. Patent No. 5,572,567).

With regard to claim 16, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that the second operating device comprises a communication member to communicate with the first operating device wirelessly and to transfer information about the change of the radiographing condition.

Khutoryansky *et al.* disclosed a second operating device that comprises a communication member (column 6, lines 35-37) to communicate with the first operating device wirelessly (infrared) and to transfer information about the change of the radiographing condition.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device that communicates wirelessly with the first operating device, since a wireless remote would allow a person to move around without restriction.

6. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) and Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Strasser *et al.* (U. S. Patent No. 5,867,561).

With regard to claim 21, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Yamayoshi and Tachi *et al.* failed to teach that

the standby mode is established when the radiographing apparatus is not used for a predetermined time period.

Strasser *et al.* disclosed a control section (52, 70) that monitors the non-use time period of a radiographing section (10) (column 5, lines 63-67; column 6, line 1). When the non-use time period exceeds a predetermined time ( $T_1$ ), the control section establishes a standby (sleep) mode in the radiographing section (column 6, lines 1-10). This standby mode is designed to reduce energy consumption.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a standby mode when the radiographing apparatus has not been used for a predetermined time period, since a person would be motivated to reduce energy consumption.

With regard to claim 22, Yamayoshi in combination with Tachi *et al.* disclosed the radiographing apparatus of claim 21, wherein the second operating device comprises a display member (546) to display information that the standby mode is established (inherent, since the display member displays a photographing state).

7. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) in view of Strasser *et al.* (U. S. Patent No. 5,867,561).

With regard to claim 30, Yamayoshi disclosed a radiographic apparatus comprising: a plurality of radiographing sections (3, 17), each having a normal mode and a standby mode; and a control section (7).

However, Yamayoshi failed to teach that the control section sets a standby mode condition to establish the standby mode for each of the plurality of radiographing sections.



Strasser *et al.* disclosed a control section (52, 70) that monitors the non-use time period of a radiographing section (10) (column 5, lines 63-67; column 6, line 1). When the non-use time period exceeds a predetermined time ( $T_1$ ), the control section establishes a standby (sleep) mode in the radiographing section (column 6, lines 1-10). This standby mode is designed to reduce energy consumption.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure the control section to establish a standby mode condition for each of the plurality of radiographing sections, since a person would be motivated to reduce energy consumption when a radiographing section is not being used.

With regard to claims 31 and 32, Yamayoshi *et al.* in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 31. However, Yamayoshi and Strasser *et al.* failed to teach that the control section sets the individual predetermined time period for each of the plurality of radiographing sections based on a frequency of use of each of the plurality of radiographing sections.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure the control section to set the predetermined time for each of the plurality of radiographing sections based on a frequency of use of each of the plurality of radiographing sections, since a person would be motivated to make efficient use of the radiographing sections by customizing the time period for each radiographing section (*e. g.*, setting a longer predetermined time for those high-usage radiographing sections would cause less disruption in their use, while setting a shorter predetermined time for low-usage radiographing sections would reduce energy consumption).

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8. Claims 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi (U. S. Patent No. 6,707,880 B2) and Strasser *et al.* (U. S. Patent No. 5,867,561) as applied to claim 30 above, and further in view of Adamski *et al.* (U. S. Patent No. 4,918,714).

With regard to claim 33, Yamayoshi in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 30. However, Yamayoshi and Adamski *et al.* failed to teach that the control section enters the standby mode when all of the plurality of radiographing sections are in the standby mode.

Adamski *et al.* disclosed a control section (40) that establishes the standby mode (wait state) for itself after it has accomplished all assigned tasks (column 7, lines 56-61). Adamski *et al.* taught that the control section is configured to respond to an external signal, which corresponds to a change in condition.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure the control section to establish the standby mode for itself after all of the plurality of radiographing sections enter the standby mode, since a person would be motivated to save additional energy once all radiographing sections have been put in the standby mode.

#### ***Allowable Subject Matter***

9. Claims 23-29 and 34 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 23-25 and 34, although the prior art discloses radiographing apparatuses comprising a radiographing section having a normal mode and a standby mode and a

control section connected to a network to receive radiographic orders, it fails to teach or fairly suggest that the control section cancels the standby mode in accordance with the radiographing order received through the network and puts the radiographing section in the normal mode as claimed in claim 23.

With regard to claims 26-29, although the prior art discloses radiographing apparatuses comprising a radiographing section having a normal mode and a standby mode, an irradiating section, and a control section, it fails to teach or fairly suggest that the control section cancels the standby mode in accordance with the operation of the irradiation section and puts the radiographing section in the normal mode as claimed in claim 26.

### ***Response to Arguments***

11. Applicant's arguments filed 01 July 2004 have been fully considered but they are not persuasive.

With regard to claims 13-22, the applicant argues that the teachings of Yamayoshi and Tachi *et al.* are not properly combinable because Yamayoshi disclosed an x-ray diagnostic apparatus, while Tachi *et al.* disclosed an x-ray apparatus for use during medical treatment. The examiner respectfully disagrees. As taught by Tachi *et al.*, although it is common to operate an x-ray apparatus from another room in order to protect a doctor or a technician as it is done in the invention disclosed by Yamayoshi, it is sometimes necessary to confirm a condition of a patient while medical treatment is being rendered, which requires the doctor to operate the x-ray apparatus on the spot while performing medical treatment (Tachi *et al.*, column 8, line 66-column 9, line 15). Therefore, it would have been obvious to provide a proximal operator in the

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vicinity of the x-ray apparatus when a patient requires medical treatment. Accordingly, the rejection is being maintained.

12. Applicant's arguments filed 01 July 2004 with respect to claims 23-29 and 34 have been fully considered and are persuasive. The rejection of claims 23-29 and 34 has been withdrawn.

13. Applicant's arguments with respect to claims 30-33 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Zur *et al.* (U. S. Patent No. 6,178,225 B1) disclosed a system for managing x-ray imaging facilities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho  
Patent Examiner  
Art Unit 2882